

Appendix B: Proposed Labeling Changes for Imidacloprid Products

Description	Proposed Label Language for Imidacloprid Products				Placement on Label
Technical Products					
Residential turf use	Delete residential spray use on turf.				Directions for Use
Foliar spray and soil drench use on bulb vegetables	Delete foliar spray and soil drench use on bulb vegetables.				Directions for Use
End Use Products					
Mode/Mechanism of Action Group Number	Note to registrant: <ul style="list-style-type: none">• Include the name of the ACTIVE INGREDIENT in the first column• Include the word “GROUP” in the second column• Include the MODE/MECHANISM OF ACTION CODE in the third column (for herbicides this is the Mechanism of Action, for fungicides this is the FRAC Code, and for insecticides this is the Primary Site of Action)• Include the type of pesticide in the fourth column.				Front Panel, upper right quadrant. All text should be black, bold face and all caps on a white background, except the mode of action code, which should be white, bold face and all caps on a black background; all text and columns should be surrounded by a black rectangle.
	Imidacloprid	GROUP	4A	INSECTICIDE	
Updated Gloves Statement	Update the gloves statements to be consistent with Chapter 10 of the Label Review Manual. In particular, remove reference to specific categories in EPA’s chemical-resistance category selection chart and list the appropriate chemical-resistant glove types to use.				In the Personal Protective Equipment (PPE) within the Precautionary Statements and Agricultural Use Requirements, if applicable
Additional PPE (double layer clothes and gloves) for seed treatments to barley and cotton	“Applicators must wear two layers of clothing and chemical resistant gloves while applying on-farm seed treatments to barley and cotton.”				Personal Protective Equipment (PPE) within the Precautionary Statements
Additional PPE (gloves) for liquid spray applications to citrus by handgun	“Applicators must wear chemical resistant gloves for liquid spray applications by handgun.”				PPE within the Precautionary Statements
Resistance-management labeling statements for insecticides and acaricides	Include resistance management label language for insecticides/acaricides from PRN 2017-1 ([HYPERLINK "https://www.epa.gov/pesticide-registration/pesticide-registration-notices-year" \h])				Directions for Use, prior to directions for specific crops

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<p>Additional Required Labelling Action</p> <p>Applies to all products delivered via liquid spray applications</p>	<p>Remove information about volumetric mean diameter from all labels where such information currently appears.</p>	<p>Directions for Use</p>
<p>Seed treatments to canola, millet, and wheat</p>	<p>“Apply in a commercial seed treatment facility.”</p>	<p>Directions for Use</p>
<p>Directions for mixing/loading products packaged in water soluble bags</p>	<p>Instructions for Introducing Water Soluble Packages Directly into Spray tanks:</p> <p>"Soluble Packages (WSPs) are designed to dissolve in water. Agitation may be used, if necessary, to help dissolve the WSP. Failure to follow handling and mixing instructions can increase your exposure to the pesticide products in WSPs. WSPs, when used properly, qualify as a closed mixing/loading system under the Agricultural Worker Protection Standard [40 CFR 170.607(d)].</p> <p>Handling Instructions Follow these steps when handling pesticide products in WSPs.</p> <ol style="list-style-type: none"> 1. Mix in spray tank only. 2. Handle the WSP in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions. 3. Keep the WSP in outer packaging until just before use. 4. Keep the WSP dry prior to adding to the spray tank. 5. Handle with dry gloves and according to the label instructions for PPE. 6. Keep the WSP intact. Do not cut or puncture the WSP. 7. Reseal the WSP outer packaging to protect any unused WSP(s). <p>Mixing Instructions Follow the steps below when mixing this product, including if it is tank-mixed with other pesticide products. If being tank-mixed, the mixing directions 1 through 9 below take precedence over the mixing directions of the other tank mix products. WSPs may, in some cases, be mixed with other pesticide products so long as the directions for use of all the pesticide product components do not conflict. Do not tank-mix this product with products that prohibit tank-mixing or have conflicting mixing directions.</p>	<p>Directions for Use for mixing/loading WSP</p>

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	<ol style="list-style-type: none"> 1. If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank. 2. Fill tank with water to approximately one-third to one-half of the desired final volume of spray. 3. Stop adding water and stop any agitation. 4. Place intact/unopened WSP into the tank. 5. Do not spray water from a hose or fill pipe to break or dissolve the WSP. 6. Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation. 7. Dissolving the WSP may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation. 8. Stop agitation before tank lid is opened. 9. Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSP has fully dissolved and the contents have been thoroughly mixed into the solution. 10. Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed. 11. Once the WSP has fully dissolved and any other products have been added to the tank, resume filling the tank with water to the desired level, close the tank lid, and resume agitation. 12. Use the spray solution when mixing is complete. 13. Maintain agitation of the diluted pesticide mix during transport and application. 14. It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label. <p>ENGINEERING CONTROLS STATEMENT Water soluble packets, when used correctly, qualify as a closed mixing/loading system under the Worker Protection Standard [40 CFR 170.607(d)]. Mixers and loaders handling this product while it is enclosed in intact water soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, socks, a chemical-resistant apron, and chemical-resistant gloves. When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in an emergency, such as in case of a spill or equipment break-down.”</p>	
All outdoor foliar spray uses	Update the bee advisory box according to the following: [HYPERLINK "https://www.epa.gov/pollinator-protection/new-labeling-neonicotinoid-pesticides"]	Follows directly after the Environmental Hazard statement

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All outdoor foliar spray uses	<p>For foliar spray application to crops under contract pollinator services:</p> <p>“Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met. If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48 hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.”</p> <p>For foliar spray application to crops not under contract pollinator services:</p> <p>“Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen off unless the application is made in response to a public health emergency declared by appropriate State or Federal authorities.”</p>	Directions for use
All outdoor foliar spray uses	<p>“Do not apply by ground within 25 feet, or by air within 150 feet of aquatic habitats (such as, but not limited to lakes; reservoirs; creeks; rivers; intermittent and perennial permanent streams; marshes or other wetlands natural; ponds; estuaries; and commercial fish farm ponds).”</p> <p>“Do not apply directly to aquatic habitats.”</p>	Directions for use
Resistance-management labeling statements for insecticides and acaricides	Include resistance management label language for insecticides/acaricides from PRN 2017-1 ([HYPERLINK "https://www.epa.gov/pesticide-registration/pesticide-registration-notices-year" \h]).	Directions for Use, prior to directions for specific crops
Additional Required Labeling Action Applies to all products delivered via liquid spray applications	Remove information about volumetric mean diameter from all labels where such information currently appears.	Directions for Use
Berries and small fruits, not including grapes, set maximum annual rate	Maximum annual application rate for berries regardless of application method is not exceed 0.40 lbs. AI/A/yr.	Directions for use
Brassica (cole) leafy vegetables, set maximum annual rate for foliar spray	Foliar spray only: maximum annual application rate is not to exceed 0.20 lbs. AI/A/yr.	Directions for use
Leafy vegetables, set maximum annual rate for foliar spray	Foliar spray only: maximum annual application rate is not to exceed 0.20 lbs. AI/A/yr.	Directions for use

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Fruiting vegetables, set maximum annual rate for	Foliar spray only: maximum annual application rate is not to exceed 0.20 lbs. AI/A/yr.	Directions for use
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foliar spray, and add application timing restriction based on crop stage	All: "Do not apply after the appearance of the initial flower buds until flowering is complete and all petals have fallen off." For tomatoes, peppers, chili peppers and okra only: "Do not apply after 5 days after planting or transplanting regardless of application method."	
Maximum allowable annual application rate	Regardless of formulation, application method, or commodity, the maximum allowable annual application rate is not to exceed XXX lbs. of Active Ingredient / Acre / Year.	
Root and tuber vegetables, not including potatoes, set maximum annual rate for foliar spray and soil drench	Foliar spray: maximum annual application rate is not to exceed 0.10 lbs. AI/A/yr. Soil drench: maximum annual application rate is not to exceed 0.31 lbs AI/A/yr.	Directions for use
Legumes, not including soybeans and peanuts, set maximum annual rate for foliar spray	Foliar spray only: maximum annual application rate is not to exceed 0.11 lbs. AI/A/yr.	Directions for use
Peanuts, set maximum annual rate for foliar spray	Foliar spray only: maximum annual application rate is not to exceed 0.12 lbs. AI/A/yr.	Directions for use
Stone fruit, set maximum annual rate for foliar spray and soil drench	Foliar spray: maximum annual application rate is not to exceed 0.40 lbs. AI/A/yr. Soil drench: maximum annual application rate is not to exceed 0.34 lbs. AI/A/yr.	Directions for use
Pome fruit, set maximum annual rate for foliar spray	Foliar spray only: maximum annual application rate is not to exceed 0.40 lbs. AI/A/yr.	Directions for use
Tree nut set maximum annual rate for foliar spray and soil drench	Foliar spray: maximum annual application rate is not to exceed 0.30 lbs. AI/A/yr. Soil drench: maximum annual application rate is not to exceed 0.36 lbs. AI/A/yr.	Directions for use
Cotton set maximum annual rate	Regardless of application method, apply no more than 0.37 lbs. active ingredient per acre per year, including seed treatment, soil drench and foliar sprays.	Directions for use
Cucurbit, add application timing restriction based on crop stage	For foliar spray and soil drench: "Do not apply after vining or appearance of the first true (non-cotyledon) leaf until harvest."	Directions for use
Avocado, banana, dates, and olives, add application timing restriction based on crop stage	Foliar spray: "Do not apply before bloom until after flowering is complete and all petals have fallen off." Soil drench: "Do not apply once bloom has occurred until the next growing season."	Directions for use

<p>All agricultural foliar spray uses</p>	<p>“VEGETATIVE FILTER STRIPS Construct and maintain a vegetative filter strip, according to the width specified below, of grass or other permanent vegetation between the field edge and nearby down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; creeks; rivers; intermittent and perennial permanent streams; marshes or other wetlands natural; ponds; estuaries; and commercial fish farm ponds).</p> <p>“Do not apply directly to aquatic habitats.”</p>	<p>Directions for use</p>
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	<p>Only apply products containing imidacloprid onto fields where a maintained vegetative filter strip of at least 10 feet exists between the field edge and where a down gradient aquatic habitat exists.</p> <p>In areas with an increased risk of stormwater runoff (such as, but not limited to, impermeable surfaces, or slopes equal to or above 5%) only apply products containing <u>name of neonicotinoid</u> where stormwater runoff has been minimized by one or more of the following:</p> <ul style="list-style-type: none"> • Catchment basins are functional and maintained in the area of application and capture stormwater runoff. • Cover-crops are being utilized to prevent runoff. • Vegetated ditches are being utilized between fields and adjacent aquatic habitat. <p>In Western irrigated agriculture the 10-foot vegetative filter strip requirement may be reduced if one or more of the following applies: is exempt from this requirement</p> <ul style="list-style-type: none"> • High efficiency irrigation (such as drip irrigation) is used. • Irrigated runoff has been eliminated. • Catchment basins are functional and maintained in the area of application (i.e. no discharge). <p>Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).</p> <p>For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. [HYPERLINK "https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_030970.pdf" \h]"</p>	
Ornamentals, which includes ornamental ground cover, Christmas trees, ornamental and/or shade trees, ornamental herbaceous plants, ornamental nonflowering plants, ornamental woody shrubs and vines	“Intended for use by professional applicators.”	Directions for use
Ornamentals, which includes		

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ornamental trees, forestry, ornamental woody shrubs and vines, and outdoor greenhouse/nursery set maximum annual rate for foliar spray and soil drench. Does not include indoor commercial nursery, Christmas trees, greenhouse uses, or forestry use on public land and quarantine application by USDA.	For both foliar spray and soil drench: maximum annual application rate is not to exceed 0.30 lbs. AI/A/yr.	Directions for use
Turf/sod set maximum annual rate	Maximum annual application rate regardless of application method is not to exceed 0.34 lbs. AI/A/yr.	Directions for use

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Poultry houses set maximum number of applications and add maximum application area	<p>“Do not apply more than one whole house treatment and 5 perimeter (partial house) treatments per year.”</p> <p>“Do not apply to more than 30,000 sq. ft. per year per house.”</p>	Directions for use
Seed treatments, add to seed bag tag	<p>Add the following statements to labels to clean up spills, dispose of excess seed to avoid contamination of water bodies down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; creeks; rivers; intermittent and perennial permanent streams; marshes or other wetlands natural; ponds; estuaries; and commercial fish farm ponds):</p> <p>“Cover or collect treated seeds spilled during loading and planting in areas (such as in row ends).”</p> <p>“Dispose of all excess treated seed by burying seed away X distance from bodies of water aquatic habitat.”</p> <p>“Disposal of planting equipment wash water directly to aquatic habitat is prohibited. Do not contaminate bodies of water when disposing of planting equipment wash water.”</p>	Directions for use
All outdoor non-agricultural spray applications	<p>“All outdoor spray applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:</p> <ol style="list-style-type: none"> 1. Application to soil, lawn, turf, and other vegetation; 2. Perimeter band treatments of 7 feet wide or less from the base of a man-made structure to pervious surfaces (<i>e.g.</i>, soil, mulch, or lawn) 3. Applications to the side of a man-made structure, up to 2 feet above ground level; 4. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure; 	Directions for Use

	<p>5. Applications around potential exterior pest entry points into man-made structures such as doorways and windows, when limited to a band not to exceed one inch;</p> <p>6. Applications to vertical surfaces directly above pervious surfaces such as bare soil, lawn, turf, mulch or other vegetation, and not over a hard impervious surface (e.g., driveways, sidewalks), drainage, or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, to control occasional invaders or aggregating pests.”</p>	
Outdoor non-agricultural spray applications	<p>“Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.”</p> <p>“Do not apply or irrigate to the point of run-off.”</p>	Directions for use

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Outdoor non-agricultural spray applications – rain related statements (except for products that require watering-in)	<p>"Do not make applications during rain. Avoid making applications when rainfall is expected within 24 hours to allow product sufficient time to dry."</p> <p>"Excessive rainfall within 24 hours after application may cause unintended run-off of pesticide application."</p>	Directions for use
Outdoor non-agricultural spot treatments	<p>"Spot treatment is application to limited areas on which insects are likely to occur, but which will not be in contact with food or utensils and will not ordinarily be contacted by workers. These areas may occur on floors, walls, and bases or undersides of equipment. Spot treatments must not exceed two square feet in size (2ft. by 1 ft.), not to exceed 10% of the entire treatment area."</p>	Directions for use
Spray Drift Management Application Restrictions for all products delivered via liquid spray application and allow aerial application	<p>"MANDATORY SPRAY DRIFT MANAGEMENT Aerial Applications:</p> <ul style="list-style-type: none"> Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety. Applicators are required to use a medium or coarser (ASABE S572.1) droplet size. Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters <p>For aerial applicators, if the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field</p> <p>Do not apply during temperature inversions."</p>	Directions for Use, in a box titled "Mandatory Spray Drift Management" under the heading "Aerial Applications"
Spray Drift Management Application Restrictions for products that allow airblast applications	<p>"MANDATORY SPRAY DRIFT MANAGEMENT Airblast applications:</p> <ul style="list-style-type: none"> Sprays must be directed into the canopy foliage. Do not apply when wind speeds exceed 15 miles per hour at the application site. 	Directions for Use, in a box titled "Mandatory Spray Drift Management" under the heading "Airblast Applications"

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	<ul style="list-style-type: none"> • User must turn off outward pointing nozzles at rowends and when spraying outer row. • Do not apply during temperature inversions.” 	
Spray Drift Management Application Restrictions for products that are applied as liquids and allow ground boom applications	<p>“MANDATORY SPRAY DRIFT MANGEMENT <u>Ground Boom Applications:</u></p> <ul style="list-style-type: none"> • User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy. • Applicators are required to use a medium or coarser droplet size (ASABE S572.1). • Do not apply when wind speeds exceed 15 miles per hour at the application site. • Do not apply during temperature inversions.” 	Directions for Use, in a box titled “Mandatory Spray Drift Management” under the heading “Ground Boom Applications”
Spray Drift Management Application Restrictions for products that are applied as liquids and allow boom-less ground sprayer applications	<p>“MANDATORY SPRAY DRIFT MANAGEMENT <u>Boomless Ground Applications:</u></p> <ul style="list-style-type: none"> • Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications. • Do not apply when wind speeds exceed 15 miles per hour at the application site. • Do not apply during temperature inversions.” 	Directions for Use, in a box titled “Mandatory Spray Drift Management” under the heading “Boomless Applications”
Advisory Spray Drift Management Language for all products delivered via liquid spray application	<p>“SPRAY DRIFT ADVISORIES THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.</p> <p>IMPORTANCE OF DROPLET SIZE An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.</p> <p>Controlling Droplet Size – Ground Boom <i>(note to registrants: remove if ground boom is prohibited on product labels)</i></p> <ul style="list-style-type: none"> • Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate. • Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size. • Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift. 	Directions for Use, just below the Spray Drift box, under the heading “Spray Drift Advisories”

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	<p>Controlling Droplet Size – Aircraft <i>(note to registrants: remove if aerial application is prohibited on product labels)</i></p> <ul style="list-style-type: none"> • Adjust Nozzles - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight. <p>BOOM HEIGHT – Ground Boom <i>(note to registrants: remove if ground boom is prohibited on product labels)</i></p> <p>For ground equipment, the boom should remain level with the crop and have minimal bounce.</p> <p>RELEASE HEIGHT - Aircraft <i>(note to registrants: remove if aerial application is prohibited on product labels)</i></p> <p>Higher release heights increase the potential for spray drift.</p> <p>SHIELDED SPRAYERS</p> <p>Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.</p> <p>TEMPERATURE AND HUMIDITY</p> <p>When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.</p> <p>TEMPERATURE INVERSIONS</p> <p>Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.</p> <p>WIND</p> <p>Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.</p>	

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	Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.”	
Advisory Spray Drift Management Language for products that are applied as liquids and allow boom-less ground sprayer applications	“SPRAY DRIFT ADVISORIES <u>Boomless Ground Applications:</u> <ul style="list-style-type: none"> Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.” 	Directions for Use, just below the Spray Drift box, under the heading “Spray Drift Advisories”
Advisory Spray Drift Management Language for all products that allow liquid applications with handheld technologies	“SPRAY DRIFT ADVISORIES <u>Handheld Technology Applications:</u> <ul style="list-style-type: none"> Take precautions to minimize spray drift.” 	Directions for Use, just below the Spray Drift box, under the heading “Spray Drift Advisories”
Admire® 2F (EPA Registration Number 264-758) label change		
PHI revision for pomegranate	PHI for pomegranate is 7-days.	Directions for use